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THE PROBABLE STATUS OF THE PACIFIC COAST SKUAS

By A. C. BENT

WHILE working out the distribution of *Catharacta skua* Brünnich, I was somewhat puzzled to know what to do with the Pacific Coast records of this species, for it hardly seemed reasonable to suppose that the Great Skua of the northern Atlantic Ocean would wander so far away from its normal range. My suspicions were strengthened by a prophetic, and perhaps intuitive, statement by Ridgway (Birds of North and Middle America, part 8, 1919, p. 678) that this species is "recorded from Aleutian Islands and from Monterey Bay, California, but probably erroneously, at least as far as correct identification is concerned, the Monterey specimens, at least, being more likely *M. chilensis*."

After corresponding with Mr. Harry S. Swarth, in an endeavor to help him to establish the identification of the two Monterey specimens in the University of California collection, he finally decided to send me these two birds and very kindly did so. But when I saw them, I was more puzzled than ever, for they were entirely unlike any specimen of *Catharacta* I had ever seen. The chief characters of these two birds are small size and uniform dark colors, without any signs of mottling or streaking. They are smaller than any of the skuas except *chilensis* and *maccormicki*, the former of which is quite rufous in color and the latter very light colored. In the Monterey birds the wings and tail are "sooty black"; the head, neck and back are "hair brown" to "chaetura black"; the under parts are uniform "hair brown"; and the under tail-coverts are "chaetura drab" (Ridgway's Color Standards and Color Nomenclature, 1912). I thought, at first, that they represented an undescribed species and I am not sure now that they do not. I determined to investigate the matter thoroughly and now propose to give the readers of THE CONDOR the results of my investigations and let them come to their own conclusions.

In the Museum of Comparative Zoology, at Cambridge, Massachusetts, I compared them with the small series there available of *Catharacta skua* Brünnich, *C. antarctica* (Lesson) and *C. chilensis* (Bonaparte). The Monterey birds are entirely unlike any of these; but there is one bird in the Museum (Bangs collection, no. 13927), taken in Sagami Sea, Japan, August 23, 1903, which closely resembles them. Mr. Bangs had called my attention to this bird a long time ago and showed me some correspondence he had had with Dr. Richmond about it: but the bird was in such badly worn and faded plumage that it seemed hardly safe to base any conclusion on it. It probably belongs, however, to the same species as the Monterey birds.

After reading Mathews' (The Birds of Australia, p. 485) statement that immature specimens of *Catharacta lonnbergi* Mathews are "uniform brownish black on the upper surface: the lower uniform brownish gray", I thought that I had found the solution of the problem: for these colors seemed to match the birds in question exactly. So I appealed to Dr. Richmond and he very kindly sent me the entire series of this species in the National Museum collection, three birds from Kerguelen Island, one bird from Tasmania and one bird from the Seychelles Islands. But I was thrown off the track again, when I examined these birds, for they all proved to be very much larger than the Monterey birds:

in fact, they are the largest of all the species of *Catharacta*. Moreover, these birds, which were perhaps all adults, were much more mottled, or streaked, with lighter colors than the Monterey birds.

There still remained one species, *Catharacta maccormicki* Saunders, with which I had made no comparisons, and I noticed in reading Dr. E. A. Wilson's (National Antarctic Expedition, vol. 2, p. 75) account of this species, that his measurements agree very closely with those of the birds from Monterey. He also says that the young birds of *C. maccormicki* are dark colored and that "even the oldest adults are dark when freshly molted." As I could not locate any specimens of *maccormicki* in this country, I wrote to Dr. Hartert and he very kindly sent me, from the British Museum, their only specimen of this species in immature plumage, a very young but fully grown and fully fledged bird, with some of the natal down still clinging to the tips of the feathers. But this also proved to be entirely different from the Monterey birds in color; it was a uniform "neutral gray" or "light mouse gray" (Ridgway), both above and below; the top of the head and back were no darker than the under parts; the wings and tail were darker, but not so dark as the birds in question.

This left me still more in the dark than ever, as I had compared the puzzling birds with every known species of *Catharacta*. It was not until I went to New York and studied the extensive series of skuas in the American Museum of Natural History, mainly in the Brewster-Sanford collection, that I began to get any light on the subject. In their magnificent series of thirty-eight specimens of Chilean Skua (*Catharacta chilensis*) I was surprised to find four which matched the Monterey birds almost exactly. In talking the matter over with Dr. Robert Cushman Murphy, who is familiar with both *Catharacta chilensis* and *C. antarctica* in life, he told me that he had noted these dark-colored birds and had at first thought of describing them as a distinct species, but that he had since come to the conclusion that they were the young of *chilensis*. In support of this theory he said that these dark-colored birds were quite common on the coasts of Chile and Peru and that they associated freely with the ordinary rufous birds of this species. Also, he had actually proven by studies in the field that the young of *antarctica*, the resident form of South Georgia, are uniformly dark-colored, having watched a young bird develop from the downy stage. I have already shown above that this is also true of *lonnbergi* and *maccormicki*.

Up to this time I had ruled out *chilensis* on account of its color, which is decidedly rufous in all specimens I had seen, though agreeing in size with the Monterey birds. But after examining this series and after talking with Dr. Murphy, I was forced to the conclusion that the birds in question are probably referable to *Catharacta chilensis* (Bonaparte). I am not, however, quite prepared to accept Dr. Murphy's theory that they are immature birds and am more inclined to think that they represent a dark phase of that species.

In the Catalogue of Birds in the British Museum (vol. 25, p. 315), under *Megalestris chilensis*, I read that "in less mature birds the chestnut color is neither so pronounced nor so extensive, but is always a strong characteristic of the species." Furthermore, both of the Monterey birds are in fresh plumage and have recently molted; one of them (Mus. Vert. Zool., no. 17758) had not quite completed its molt when it was collected on August 4, 1910, for the outer primary in each wing is old and worn. As the first molt of the primaries in birds of this group usually occurs when the bird is from 14 to 16 months old, it may safely be inferred that these birds are more than one year old, at least, and

perhaps much older. At this age juvenal characters should have, at least partially, disappeared. I am reluctant to adopt the color phase theory unless it can be proven; but it must be borne in mind that at least two other species of this family are known to have very distinct color phases.

On the strength of all the above evidence, it seems fair to assume, for the present and until further evidence is produced, that all of the specimens of *Catharacta* taken north of the Equator in the Pacific Ocean are referable to *C. chilensis* (Bonaparte). These specimens, so far as known to the writer are: One in the American Museum of Natural History, New York (no. 46093), taken off Monterey many years ago, before 1853, by or for Nicholas Pike; one in the Museum of Comparative Zoology in Cambridge (Bangs coll. 13927), taken in Sagami Sea, Japan, August 23, 1903; one in the California Academy of Sciences, San Francisco (no. 10920) and two in the Museum of Vertebrate Zoology, Berkeley (nos. 17758, 17759), all three taken by Rollo H. Beck, in Monterey Bay, on August 7, 1907, August 4 and September 21, 1910, respectively; and three taken by Stanton Warburton, Jr., off the coasts of Washington and Vancouver Island, on June 28 and 30, 1917. Mr. Joseph Mailliard has very kindly sent me a full and accurate description of the Academy bird, and I understand that Mr. Warburton's birds were identified by Mr. Harry S. Swarth as of the same species as those in the Museum of Vertebrate Zoology. Apparently they are all of the same species. This materially extends the range of the Chilean Skua, *Catharacta chilensis* (Bonaparte), and adds this species to the North American list.

Taunton, Massachusetts, March 18, 1921.

NESTING OF THE STEPHENS FOX SPARROW

By WRIGHT M. PIERCE

WITH THREE PHOTOS BY THE AUTHOR

THERE seem to be no published records of the nesting of the Stephens Fox Sparrow (*Passerella iliaca stephensi*), nor a description of the eggs. While sets of eggs of this bird may have been collected by others, I, myself, had not enjoyed that experience, and I was anxious to find a nest.

The past few seasons I, with different companions, have been making regular collecting trips to Big Bear Lake, San Bernardino Mountains, southern California, one of the principal homes of the Stephens Fox Sparrow; but search for sets had always been without results prior to 1919. We had spent much time scouring through the patches of mountain misery (*Ceanothus*) which grows quite thick, from two to four feet high, and is covered with numerous thorns; and also through the chinquapin, a scraggy, wiry bush which grows to about the same height and is very difficult to penetrate. While the birds themselves were quite abundant in favored localities, such as the brush-covered canyons and little flats on the hills about the lake, the nearest we came to finding a nest was an encounter with young just out and not yet able to fly. Naturally we arrived at the conclusion, wrongly as we later discovered, that the birds must nest only on